

SM LED

Project Name:	
Type:	



APPLICATION

Specification grade fixture designed for high performance and maximum efficiency. It can be installed in rows either surface or stem mounted to provide excellent, energy efficient general lighting in commercial, retail and institutional environments.

FEATURES:

- Die formed, cold-rolled, heavy gauge steel housing construction provides durability and strength.
- 100% acrylic, clear prismatic pattern #12 lens with nominal 0.100" thickness. Steel door frame allows easy lens replacement without tool.
- Unique door frame design delivers a premium extrude appearance.
- Door latches and hinges from either side.
- Standard door is without gasket flush steel with sturdy tee hinges and opposing, rotary action cam latches. Also available fully gasket door.
- Smooth edges for easy handling.
- Finish is high-gloss baked white enamel over rust inhibiting phosphate coating for maximum corrosion resistance.
- Paint after fabrication.

MOUNTING:

- Pendant or surface mounting.
- End to end row mounting or single unit installation for both surface and stem mounting.
- 1'x4' fixture requires at least 2 stems for stem mounting. 2'x2' , 2'x4' fixtures require at least 4 stems for stem mounting.
- Compatible with most ceiling types.

LED:

- High quality array LEDs.
- LM80
- Color Temperature: 2700/3000/3500/4000/5000 (K)
- Color Rendering Index: > 80 Ra.
- Calculated L70: 122,000 hours
- Reported L70: +60,000 hours

ELECTRICAL:

- High power factor electronic driver, operate from a 120 ~ 277 Vac input range, 50 / 60 Hz.
- Features included over voltage protection, surge, short circuit protection and over load protection.
- Power Factor: typical > 0.95, THD <20, meets Class1 or Class 2 circuit.
- Philips Xitanium: 0-10V Dim to 1%(PH).
- Osram Optotronic: 0-10V Dim to 1%(OS1) or 10%(OS).
- Generic : 0-10V 10% dim. (GR)
- Operating temperature: -4°F (-20°C) ~ 122°F (50°C).
- <ELCU-200>
- Guarantees emergency lighting remains ON or is turned on when power to the control device is lost.
- Interfaces with fire alarm panel or security system.
- "Watchdog" feature allows emergency loads to be controlled in tandem with normal power loads.
- UL listed for use in emergency circuits.

LISTING:

- UL/CUL listed and labeled.
- Listed to UL 1598 and UL 8750.
- Suitable for dry and damp locations.
- CEC Compliant EM (please contact for more information)
- ARRA compliant (optional).
- BAA compliant (optional).
- 7 or 10 years limited warranty. (optional) 4
- 5 years limited warranty.
- Bluetooth Mesh System available, please contact factory for more information.

CONFIGURATIONS

Series	Size	LED	AC Input	Lumen Output (4000K)	Lumen Efficiency (4000K)	
SM LED	1' x 4'	36LED	39.33W	4361.57 lm	110.90 lm/W	
		44LED	46.71W	5584.36 lm	119.55 lm/W	
		54LED	57.33W	6404.25 lm	111.71 lm/W	
		72LED	78.66W	9339.55 lm	118.73 lm/W	
		108LED	114.66W	13713.58 lm	119.60 lm/W	
	2' x 2'	27LED	29.76W	3598.15 lm	121.27 lm/W	
		36LED	39.22W	4536.36 lm	115.66 lm/W	
		44LED	46.84W	5384.59 lm	114.96 lm/W	
		54LED	57.49W	6608.91 lm	114.96 lm/W	
		72LED	78.44W	9072.71 lm	115.66 lm/W	
	2' x 4'	108LED	114.98W	13216.80 lm	114.95 lm/W	
		36LED	39.58W	4850.41 lm	122.55 lm/W	
		44LED	47.08W	5798.86 lm	123.17 lm/W	
		54LED	57.79W	7134.53 lm	123.46 lm/W	
		72LED	75.50W	9238.20 lm	122.36 lm/W	
			108LED	108.0W	13088.52 lm	121.19 lm/W

CCT	Multiplier		
	3000K	3500K	5000K
1X4	0.9502	0.9837	1.0173
2X2	0.9891	0.9951	1.0119
2X4	0.9809	0.9980	1.0030


OUTPUT CURRENT

		Bi-Level		Tri-Level (Default)	
SW1	SW2	Config Range	Default	Config Range	Default
Close	Open	10% - 70%	40%	10% - 70%	30%
Open	Close	10% - 70%	40%	10% - 70%	70%
Close	Close	100%	100%	100%	100%
Open	Open	0%	0%	0%	0%


LED SURFACE MOUNT TROFFER


ORDERING INFORMATION

EXAMPLE: SM-24-36LED-40K-UNV-AB

MODEL	SIZE	LED	COLOR TEMP.	EFFICACY	CRI					
SM	14	1' x 4'	27LED	27W LED	-27K	2700K ⁸	(Blank) HE	Standard High Efficacy 	(Blank) C9	80+ CRI 90+ CRI ⁹
	22	2' x 2'	36LED	36W LED	-30K	3000K				
	24	2' x 4'	44LED	44W LED	-35K	3500K				
			54LED	54W LED	-40K	4000K (Std.)				
			72LED	72W LED	-50K	5000K				
		108LED	108WLED							

TRIM TYPE		DIFFUSER		VOLTAGE	
(Blank)	Flush Steel, White	(Blank)	Pattern #12 Acrylic Lens 0.100" Thick	UNV	120-277V (Std.)
SB	Flush Steel, Black	A12125	Pattern #12 Acrylic Lens 0.125" Thick	120	120V
FB	Flush Aluminum, Black	P12125	Pattern #12 Polycarbonate Lens 0.125" Thick	277	277V
FN	Flush Aluminum, Natural	A19	Pattern #19 Acrylic Lens 0.156" Thick	347	347V ²
FW	Flush Aluminum, White	P1	5/8"x5/8"x7/16" Deep Specular Plastic Louver	480	480V ²
RB	Regressed Aluminum, Black	P3	3/4"x3/4"x1/2" Deep Specular Plastic Louver ³		
RN	Regressed Aluminum, Natural	WA08	White Acrylic 0.08" Thick		
RW	Regressed Aluminum, White	WA125	White Acrylic 0.125" Thick		
AMB	Anti-Microbial Coating (Matte Skye White)	FR	Frosted Acrylic Lens, Pattern#12, 0.100" thick		
		FR12	Frosted Acrylic Lens, Pattern#12, 0.125" thick		
		P5OL	3/4" x 3/4" x 3/8" Deep Specular Plastic Louver with overlay		

LED DRIVER		OPTIONS	
GR	Generic, 0-10V 10% dim (Std.) ⁷	AB	AB Switching
DM1	Generic 0-10V 1% dim	EMG8	1296 LUMEN EM Battery Backup (CEC Compliant EM) ^{6, 12}
PH	Philips Xitanium, 0-10V 1% dim ⁷	EMG15	2430 LUMEN EM Battery Backup (CEC Compliant EM) ^{6, 12}
OS	Osram Optotronic, 0-10V 10% dim ⁷	EMG20	3240 LUMEN EM Battery Backup (CEC Compliant EM) ^{6, 12}
OS1	Osram Optotronic, 0-10V 1% dim ⁷	EMG25	4050 LUMEN EM Battery Backup (CEC Compliant EM) ^{6, 12}
SD40	40%/100% Bi-Level Step dim (PH only)	ELCU-200	Fail-to-on Emergency lighting, UL924 ¹⁰
SDXX	XX% / 100% Bi-Level Step dim (Specify XX : 10% ~ 70%) (PH only)	GTD	Bodine Generator Transfer Device
TDM	Triac Dim. (120V only)	GTD10DIM	Bodine Generator Transfer Device (0-10VDC Dimmer Override)
TD30/70	30% / 70% / 100% Tri-Level Step dim (PH only)	GLR	Fast Blow Fuse ¹
TDXX/YY	XX% / YY% / 100% Tri-Level Step dim (Specify XX, YY : 10% ~ 70%) (PH only)	GMF	Slow Blow Fuse ¹
ES566	eldoLED SOLDrive Natural Dimming to dark, 0-10V, 100% ~ 0.1% dim	SSH	Swivel Stem Hanger
EC	eldoLED ECOdrive 0-10V natural dim to 1% (Hybrid HydraDrive)	DSH	Double Stem Hanger
LDE1	Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology, 100% ~ 1% dim	AMS	Bluetooth Mesh Wireless Sensor. Occupancy/Daylight/0-10V Dimming
ELV	ELV compatible (reverse-phase or trailing-edge), (120V only)	DPMS	Daylight Dimming Photo Sensor (0-10 VDC Control) ¹⁴
PHSR	Philips Xitanium Sensor-Ready, Dali 5%~100% dim.	SO	Dimming Wires connected to Sensor Only (available option on FS-205 non-Blue-tooth AMS sensor only) ⁵
PHDL	Philips Xitanium DALI driver, Dim to 5%	LSR-301-S	Setup Remote Control for DPMS
ED560	eldoLED LightShape DALI dim to dark, 0.1% ~ 100%	LSR-301-P	Occupant Remote Control for DPMS
DMX	DMX512 control system (Only available with RGB+W option)	O7W	Optional 7 Years Limited Warranty ⁴
DLM	Wattstopper's DLM interface (Only available with RGB+W option)	O10W	Optional 10 Years Limited Warranty ⁴
LTEA2W	Hi-lume 1% 2-wire LED driver (120V forward phase only)	SLL	Spring-Loaded Latches ¹³
 BLT	Bluetooth Mesh System (contact factory for more information)	HC403	Microwave bi-level Occupancy Sensor, adjustable via DIP switch ¹⁵
		ARRA	Assembled in USA for Buy American Act
		BAA	BAA(Buy American Act) and BABA(Build America Buy America) compliant

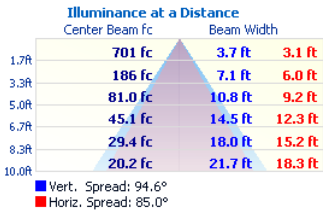
LIGHTING CONTROL SYSTEM	
LUTRON VIVE	<p><Lutron Vive System Enabled></p>  <p>Click Here!</p>
SNS200C RS-IR	<p><EasySense></p> <p>EasySense Ceiling-mount occupancy sensing, daylight harvesting and task tuning in one device (Must be ordered with PHSR driver)¹¹</p> <p>IR dongle for EasySense control</p>
PPA102S	<p><Bluetooth></p> <p>Bluetooth Powerpack (Consult factory for installation location)</p>

NOTES:

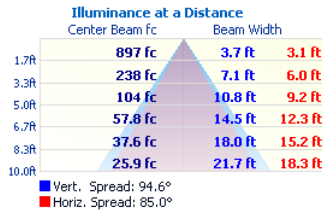
- Must specify voltage, not available with 347V.
- Supplied with step down transformer.
- Not available in 1'x4'
- This limited warranty covers electrical parts only and does not apply to labor, equipment lease, or defect from improper installation or operation. (EM battery backup does not included)
- Dimming wires provided and connected to sensor only, not for dimmer switch. (available with AMS and DPMS option)
- Contact factory for other emergency ballast options.
- To find an approved dimmer switch, please see table 1.
- Available with C9 only.
- Lumen per watt is around 15% less than standard CRI (80+).
- Shipped separately.
- Please see Compatible Phone list in the separate attachment. If not listed, please order "RS-IR", and follow IR-Dongle user guide and NFC and IR app user's manual. Android users only.
- Must specify voltage, not available with 347V or 480V.
- RB, RN and RW door frames are not available with SLL option.
- Automatic on/off is not available. For automatic on/off, additional occupancy sensor is required or a manual on/off switch can be done.
- See Table2 to find factory setting.

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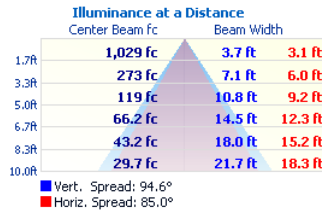
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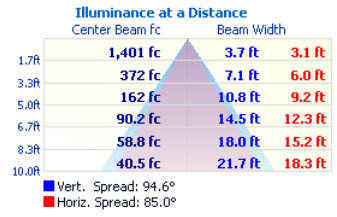
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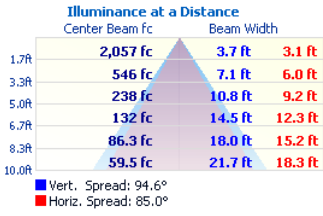
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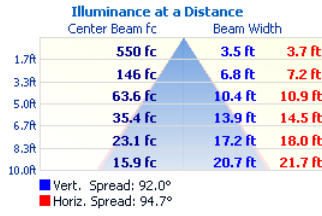
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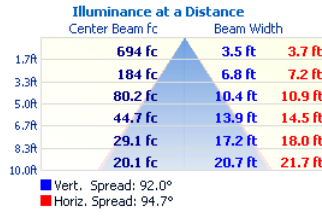
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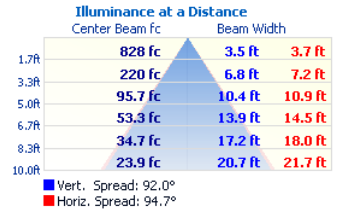
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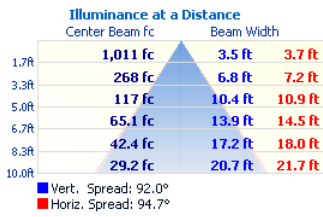
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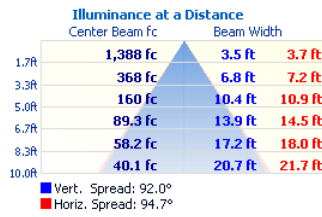
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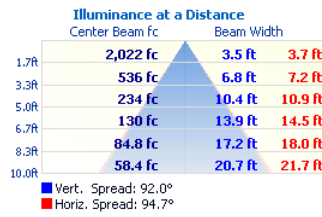
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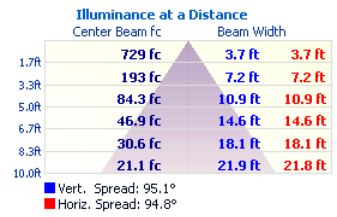
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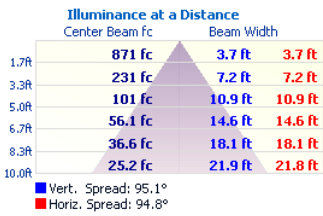
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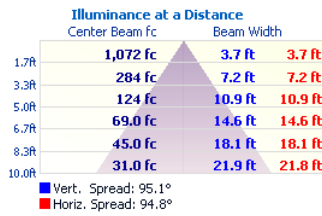
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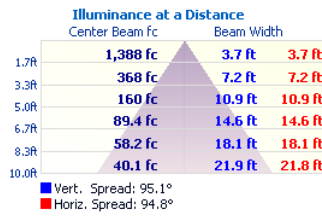
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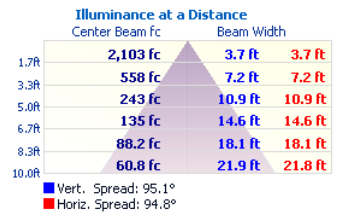
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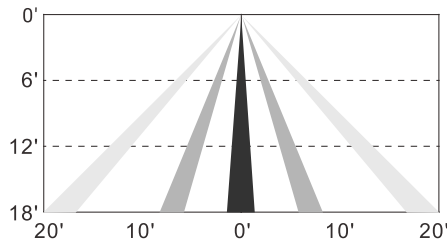
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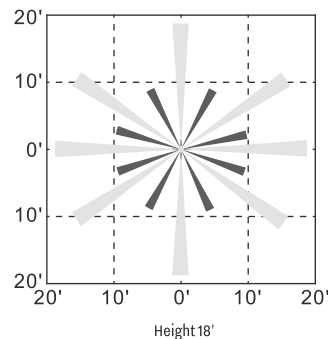
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SIDE VIEW

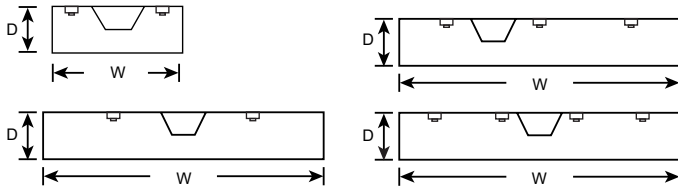


TOP VIEW



AMS coverage pattern

SM LED



Specifications: 1'x4'

Length: 48 (1218)
 Width: 12 (304)
 Depth: 3-7/8 (99)
 Weight: 16.6 lbs (7.53 kg)

Specifications: 2'x2'

Length: 24 (608)
 Width: 24 (608)
 Depth: 3-7/8 (99)
 Weight: 16.16 lbs (7.33 kg)

Specifications: 2'x4'

Length: 48 (1218)
 Width: 24 (608)
 Depth: 3-7/8 (99)
 Weight: 26.3 lbs (11.93 kg)

All dimensions are in inches (millimeters).

COMPATIBLE DIMMER SWITCH (TABLE 1)

Model #	Brand	Compatible Dimmer Switch	
(Blank)	-	<Leviton>	IlumaTech IP7 series
		<Lutron>	Visit www.lutron.com/advance for a list of dimmers (Mark VII) that will work with this driver.
		<Philips>	Sunrise : SR1200ZTUNV
ES566	eldoLED SOLOdrive	<Busch-Jaeger>	2112U-101
		<Jung>	240-10
		<Leviton>	IlumaTech - IP710-DLX
		<Lightoller Controls>	ZP600FAM120
		<Merten>	5729
		<Pass & Seymour>	CD4FB-W
		<Wattstopper>	DCLV1
		<Sensor Switch>	nIO EZ
		<Synergy>	ISD BC
		<ABB>	SD/S 2.16.1
		<Lutron>	Nova T: NTFTV Diva - DVTV-xx, NFTV GRAFIK Eye: GRX-TV1 w GRX3503 Energy Savr Node: QSN-4T16-S TVM2 Module
		<Crestron>	GLX-DIMFLV8, GLXP-DIMFLV8, GLPAC-DIMFLV4-*, GLPAC-DIMFLV8-*, GLPP-DIMFLVEX-PM, GLPP-1DIMFLV2EX-PM, GLPP-1DIMFLV3EX-PM, DIN-AO8, DIN-4DIMFLV4, CLS-EXP-DIMFLV, CLCI-1DIMFLV2EX
LDE1	Lutron Hi-lume 1% EcoSystem	<Lutron>	PowPak Dimming Modules: RMJ-ECO32-DV-B, FCJ/FCJS-ECO ^{1,2} Energi Savr Node (120V only): QSN-1ECO-S, QSN-2ECO-S GRAFIK Eye QS/Homeworks QS control unit (120V only): QSGRJ- _E(wireless) QSGR- _E Quantum Hub (120V only): QP2- _2C/4C/6C/8C Homeworks QS/myRoom Plus power module (120V only): LQSE-2ECO-D
TDM	KEYSTONE	<Lutron>	Divia DV-600P, SkyLark S-600P, Ariadni AY-600P, Ariadni TG-603P, Maestro MA-600 (Digital), Diva CFL/LED DVCL-153P, Satin Colors DVSC-600P-SW
		<Leviton>	6641, IlumaTech IPI06-1LX, ToggleTouch TGI06-1LW (Digital)
ELV	KEYSTONE	<Lutron>	MAELV-600BL (Digital), DVELV-300P, SkyLark SELV-300P
LTEA2W	Lutron Hi-lume 2-wire (120V forward voltage only)	<Lutron>	Visit http://www.lutron.com/TechnicalDocumentLibrary/369543_ENG.pdf for a list of compatible dimmer switches.

NOTES:

- All devices connected to one FCJ/FCJS-ECO will be controlled together. Devices will dim to the same level as the result of a control command. For more detail on adjusting low-end light level refer to Application Note#556 at www.lutron.com.
- For the Line/Hot (L/H) terminal on the driver, it is preferred not to use the switched hot (red) wire from the control but rather the hot wire directly from the power source.

HC403 FACTORY SETTING (TABLE 2)

Detection Area	100%
Hold-time	5 sec
Daylight sensor	Disable
Stand-by period (tri-level control)	10 sec
Stand-by dimming level	10%

* See a separate attachment to find more setting options.